

Biennial Review Request for Comments From DEQ (revised 8-28-12)

"The State Department of Agriculture and the State Board of Agriculture shall consult with the Department of Environmental Quality or the Environmental Quality Commission in the adoption and review of water quality management plans and in the adoption of rules to implement the plans." ORS 568.930(2)

Survey Checklist for: **Middle Deschutes**

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Date: March 27, 2014

(If answered "no", please provide information and/or example language)

I. Area Plan Content

A. Issue identification

1. Does the Area Plan include all water quality limited water bodies, including 303(d) listed and with approved TMDLs?

DEQ Comment: Yes.

2. Does the Area Plan adequately reflect current TMDL status?

DEQ Comment: Yes. TMDLs have not been completed yet in this area.

3. Does the Area Plan sufficiently present the TMDL load allocation that it is intended to address?

DEQ Comment: N/A. TMDL load allocations have not been developed yet. However, the Area Plan does include objectives and milestones that would likely be very similar to those required to address load allocations (maintain and/or improve riparian conditions and shade, and decreasing nutrient, sediment, and bacteria loading associated with agricultural activities.)

4. Does the Area Plan adequately include items from applicable Groundwater Management Area Action Plans?

DEQ Comment: There is not a GWMA in the Middle Deschutes. However, the Area Plan refers to the Deschutes Basin Water Quality Status and Action Plan (DEQ 2012) and its identification of groundwater quality concerns in the Trout Creek and Willow Creek Subbasins, particularly for nitrates. See further discussion in the response to Question A(7).

5. Does the Area Plan present the requirements of Coastal Zone Management Act applicable to agriculture?

DEQ Comment: N/A.

6. Does the Area Plan include sufficient items from the State of Oregon; Pesticide Management Plan (PMP) for Water Quality Protection?

DEQ Comment: Yes. The PMP is mentioned in this Plan. Management of pesticides (toxics) is included under the objectives and milestones. The Area Plan also mentions that the Middle Deschutes is a potential area for inclusion in the Pesticide Stewardship Partnership.

7. Does the Area Plan sufficiently address the needs in drinking water source areas related to agricultural pollution sources within the geographic area of the plan?

DEQ Comment: Yes. The Area Plan does discuss the concern about nitrates in the groundwater in the agency Plan's area and describes some of the monitoring work that the SWCD and ODA have already done to try and determine the sources of nitrates. The Plan also has a specific objective to develop a monitoring plan to further evaluate nitrate levels in groundwater in the agency Plan's area.

The following information was provided by DEQ's Source Water Protection staff for the Middle Deschutes area.

None of the public water systems in the Middle Deschutes area use surface water as their source; however, there are 10 public water systems using groundwater wells in the Plan area serving a total of approximately 18,600 people. Most of these are identified as vulnerable to contamination due to characteristics of the drinking water supply aquifer and the potential for contaminants to reach the aquifer based on source water assessments completed by DEQ and the Oregon Health Authority. Only three of these public water systems are "community" systems where DEQ completed an inventory of potential contaminant sources. Agricultural land uses (irrigated crops, pasture, and livestock) were identified in the public water system source area for Madras and Deschutes Valley Water District. If ODA and the SWCD determine that there is a potential for agricultural sources to contaminate source water in these two areas, they can work with DEQ's Source Water Protection staff to develop a strategy to address the potential issue.

Note that DEQ's Source Water Protection Program only addresses drinking water issues identified for PUBLIC water systems. A query of Water Resources Department's water rights database for private domestic points of diversion (using a threshold of 0.005 cfs for domestic water rights that are household use only, not irrigation) identified 94 private domestic water rights in the Middle Deschutes area. Most of these are along Trout Creek or its tributaries. There are also numerous private groundwater wells for domestic use. Real Estate Testing data for 1989-2008 does not indicate significant detections of nitrate in groundwater where data is available (reference: see slide 11-13 of <http://www.deq.state.or.us/wq/onsite/docs/RETData.pdf> and page 75 in the Deschutes Basin

Water Quality Status and Action Plan
<http://www.deq.state.or.us/wq/watershed/watershed.htm>).

ODA Response: Two of the community water systems are sourced from Opal Springs; the source of H2O bottled water. These springs are far underground, and the LAC felt it was unlikely that they could get contaminated. The Jefferson SWCD, ODA, and partners have sampled nitrates in wells and plan to develop a monitoring plan to track trends.

Goals and Objectives:

8. Do the goals and objectives of the Area Plan clearly state that the purpose of the Area Plan is to prevent and control water pollution and to meet water quality standards?

DEQ Comment: Yes.

9. Does the Area Plan include clear and measurable objectives that are designed to meet water quality standards and TMDL load allocations?

DEQ Comment: The Plan does include clear and measurable objectives. The Plan has not yet determined milestones for tracking progress or identified how progress will be measured, although the Plan indicates this will be done over the next two biennial review cycles.

The Plan identifies targeting 90% compliance with the Area Rules. DEQ realizes that 100% compliance may take time, but recommends that ODA and the LAC develop interim milestones and a timeline to ultimately achieve 100% compliance.

ODA Response: Yes, overall goal is 100% compliance. But due to natural disturbance, landowner changes, management changes, and other forms of variation, it is unlikely we'll have 100% compliance at any single point in time. The LAC felt that 90% was a more realistic goal to achieve at any one point in time.

B. Strategies to Meet Water Quality Goals and Track Progress

1. Are geographic and/or water quality issue priorities listed in the Area Plan consistent with TMDL and GWMA priorities?

DEQ Comment: Although there are no TMDLs or GWMA in this area, the water quality issue priorities listed in the Area Plan are consistent with DEQ's general water quality priorities for this area. There are not any geographic priorities identified in the Area Plan. DEQ recommends that ODA and the LAC develop geographic priority areas, which it sounds like they are planning to do by the next biennial review.

2. Are geographic scales and implementation actions identified in the Area Plan appropriate to track implementation, progress, and effectiveness?

DEQ Comment: Unclear. For the most part, the implementation actions in the Area Plan are not tied to a geographic scale, so tracking progress and effectiveness might be difficult. It does not appear that any geographic Priority Areas have clearly been identified for this Plan. Are some areas and/or issues prioritized over others? Are some issues more of a concern in some geographic areas and not others? DEQ would encourage ODA and the LAC to develop priority areas, which it sounds like they are planning to do by the next biennial review.

ODA Response: There is already one focus area in the Management Area: the Mud Springs Drainage. The SWCD has committed to identifying additional focus areas and prioritizing them.

3. If applicable, is the Watershed Approach Action Plan addressed?

DEQ Comment: Yes. A Watershed Approach Plan has been developed for the Deschutes Basin (2011). In the Watershed Approach Plan, the surface water issues identified in the Trout Creek and Willow Creek Subbasins are: bacteria, temperature, nutrients, dissolved oxygen, pH, chlorophyll *a*, altered hydrology, habitat modification, and sedimentation/turbidity. The groundwater issues identified include: nitrate and bacteria.

The Area Plan appears generally to address most of the issues listed above that could be related to agricultural practices.

4. Does the Area Plan provide sound evidence or reasons why implementation actions could lead to pollution reduction? If some of the implementation actions are not consistent with TMDL and other WQ goals, explain why those practices do not contribute toward meeting those WQ goals.

DEQ Comment: Generally it does. In general, the implementation activities identified in Section 4 (Management Measures and their Intent) and Section 5 (Voluntary Management Practices) appear to follow recognized guidelines (such as NRCS and SWCD). Both of these sections appear to focus on surface water protection. DEQ would encourage ODA and the LAC to include management measures specific to groundwater protection as appropriate.

Further information on how geographic areas and/or water quality issues will be prioritized would provide more confidence in success of implementation activities over the whole Middle Deschutes geographic area. It sounds like this information will be available by the next biennial review.

5. Does the Area Plan include timelines, schedules, and measurable milestones that are consistent with the TMDL WQMP?

Although there is no WQMP, the Area Plan does describe some milestones and identifies that a timeline for this work will be developed by 2018. See the response to questions B(2) and C(2) above, for further information.

6. Is monitoring adequate to determine whether progress is being made to achieve the goals of the plan? If no, are monitoring needs identified and is there a strategy to meet those needs?

DEQ Comment: Generally, it appears that it will be. The monitoring that has been done in the past by the SWCD and ODA to evaluate water quality conditions as related to agriculture has been excellent. The Area Plan identifies this monitoring and summarizes some of the results of this monitoring, although it does not specifically describe if or how this water quality monitoring will be continued in the future.

The Area Plan identifies future monitoring activities that will be done by ODA and the SWCD to track progress on meeting the Plan's objectives. It seems like much of the monitoring methodology will developed over the next two years. DEQ would encourage ODA and the SWCD to evaluate different types of monitoring as they move forward. Monitoring of water quality conditions, assessment of land conditions, and assessment of implementation of activities, are all important components of assessing how well the Plan is working.

II. Implementation/evaluation

- A. Are voluntary efforts sufficient to implement the Area Plan or are additional incentives needed to increase the rate of participation?

DEQ Comment: Given what we know of ODA and SWCD staff working in this Area, we suspect that the voluntary efforts, combined with enforcement as occasionally needed, are sufficient to implement the Plan.

- B. Are milestones and timelines established for Area Plans achieving the goal of the Program?

DEQ Comment: See comments above under Area Plan Content.

- C. Is reasonable progress being made towards accomplishing milestones and timelines in the Area Plan?

DEQ Comment: This is hard to evaluate at this point since milestones and timelines are just being developed.

III. Area Rules

A. Are the prohibited conditions likely to be effective in making reasonable progress towards meeting state water quality goals?

DEQ Comment: It seems like it. We do have some questions because some of the Rules (Streamside Area Rule and Instream Structures Rule) include compliance dates (2005, 2007) when it appears that all landowners were supposed to be in compliance with the Rule. Has that happened? If not, do implementation activities under the Plan need to be changed?

Also, once a methodology for determining compliance is determined (see response to B(2)), it will be easier to assess whether the Rules will be effective at meeting water quality goals. It sounds like this will be done by the next biennial review.

B. Are additional prohibited conditions or other mandatory control measures needed?

DEQ Comment: Not that we can think of at the time of this review.